

IN THE CLAIMS:

1. (currently amended) A Motion Pictures Experts Group 4n (MPEG-4) encoder comprising:

an .mp4 file media track generator configured for generating, as a first output of encoding by said encoder, an .mp4 file comprising, as encoded content, a media track;

and

a fragmentation structure file generator configured for generating a fragmentation structure file as a second output of encoding by said encoder simultaneously with said first output and as a separate file, both outputs being configured as input for a hinter program configured for creating as output, based on said second output and an output of said media track generator, a hinted file that comprises said output of said media track generator and a hint track that contains pre-segmentation information usable at a server in segmenting, into network packets, said output of said media track generator in said hinted file, said hinted file being configured with a specification of a number of network packets for each MPEG-4 data entity in said output of said media track generator in said hinted file and, for each of said packets for said entity, a size in bits of a fragment to be created by said segmenting~~in which the bitstream corresponding to the output encoded content to be sent by means of a transmission network is stored in the so-called .mp4 file format as media tracks and the transport mechanism is stored in said file by adding specific hint tracks, one per media track, said hint tracks being used to include, for the adaptation of said encoded content to the size of the transmission packets corresponding to a given type of network, a pre-segmentation information indicating how to fragment the MPEG-4 data entities (or Access Units) stored in the media tracks in order to match the size of said~~

~~packets, said encoder being such that the fragmentation information, structuring the coded bitstream in entities that are now independent in order to recover some context even if a packet is lost, is stored during encoding in a fragment structure file which is independent of said .mp4 file.~~

2. (currently amended) A coded signal configured for processing by a processor receiving said signal from a computer-readable medium, said signal being created available at the ~~from~~ output of ~~an~~ a Motion Pictures Experts Group 4 (MPEG-4) encoder in the ~~to~~ form of a bitstream having two sides and to be sent by means of a transmission network and including, on one side ~~of the sides,~~ media data, stored in the so-called .mp4 ~~an~~ MPEG-4 file format; and, on the other ~~of the sides-side,~~ a pre-segmentation information indicating how to fragment the MPEG-4 data entities (or Access Units) corresponding ~~to~~ in said media data in order to match the size of the ~~resulting~~ packets ~~offor~~ transmission on said ~~a~~ transmission network to a size specific to said transmission network.

3. (currently amended) An MPEG-4 terminal having a processor for; receiving a coded signal according to claim 2, said processor being configured for reading the received signal ~~and which is read~~ according to a file structure having the following syntax:

_____ Loop on MPEG-4 Access Units until end-of-file, and, for each Access Unit:

_____ Read ~~the~~ a specified number N of fragments ~~N_i~~;

_____ - _____ Loop on fragments until N, ~~and~~ wherein, for each fragment:

_____ Read ~~the fragment~~ a size, in bits, of the fragment ~~(in bits);~~

_____ -End-of-loop on fragments;

_____ End-of-loop on Access Units.

4. (currently amended) An MPEG-4 terminal according to claim 3, in which a hinter program is provided for generating, ~~from an~~ with the .mp4 file, a ~~new file .mp4 file~~ containing ~~optimal~~ hint tracks that are both media and network specific, said new .mp4 ~~hinted~~ file being transmitted for the reception by said processor as said coded signal ~~then used by the terminal according to the concerned application.~~

5. (new) The encoder of claim 1, wherein said fragmentation structure file generator is further configured so that said generating of said fragmentation structure file occurs in response to a request for said content by a client of said server.

6. (new) The encoder of claim 1, wherein said server is a video-on-demand server.

7. (new) The encoder of claim 1, wherein said .mp4 file is configured for storing a plurality of media tracks, and respective hint tracks, said respective hint tracks including, for adaptation of encoded content of the plural media tracks to a size of said network packets of a given type of network, said pre-segmentation information indicating how to fragment MPEG-4 data entities stored in said plural media tracks to match said size, said pre-segmentation information being derived from information in said fragmentation structure file for structuring a coded bit stream into entities that are independent to recover some context even if a packet from among said network packets is lost.

8. (new) The server of claim 1, comprising the encoder and said hinter program.
9. (new) The server of claim 1, further configured for archiving the fragmentation structure file for subsequent retrieval as said input.
10. (new) The server of claim 9, wherein said retrieval occurs in response to a request, by a client of said server, for content.
11. (new) The server of claim 10, wherein said fragmentation structure file generator is further configured so that said generating of said fragmentation structure file occurs in response to a previous request, by a client of said server, for content.
12. (new) A coded signal configured for being received by a processor from a computer-readable medium as said hinted file of claim 1, said processor performing said segmenting on the received hinted file.
13. (new) The coded signal of claim 12, wherein said hinted file is transmitted, for said reception by said processor, as a bit stream having two sides and that comprises, on one of said two sides, said output of said media track generator and, on the other of said two sides, said hint track.

14. (new) An MPEG-4 terminal having said processor of claim 13 for said receiving of the coded signal, said processor being configured for reading the received signal according to a file structure having the following syntax:

Loop on MPEG-4 Access Units until end-of-file, and, for each Access Unit:

Read a specified number N of fragments;

Loop on fragments until N, wherein, for each fragment:

Read a size, in bits, of the fragment;

End-of-loop on fragments;

End-of-loop on Access Units.

15. (new) The terminal of claim 14, wherein said size of the fragment to be read is represented in said bit stream by ASCII delimited by a separator character.

16. (new) A method for Motion Pictures Experts Group 4 (MPEG-4) encoding comprising:

generating, as a first output of said encoding, an .mp4 file comprising, as encoded content, a media track; and

generating a fragmentation structure file as a second output of said encoding simultaneously with said first output, both outputs being configured as input for a hinter program configured for creating as output, based on said second output and an output of the media track generating, a hinted file that comprises said output of said media track generating and a hint track that contains pre-segmentation information usable in segmenting, into network packets, said output of said media track generating in said

hinted file, said hinted file being configured with a specification of a number of network packets for each MPEG-4 data entity in said output of said media track generating in said hinted file and, for each of said packets for said entity, a size in bits of a fragment to be created by said segmenting.

17. (new) A method for structuring a bitstream for transmitting the hinted file of claim 16 for reading by a processor, said method comprising configuring said bitstream according to the following syntax:

Loop on MPEG-4 Access Units until end-of-file, and, for each Access Unit:

Read a specified number N of fragments;

Loop on fragments until N, wherein, for each fragment:

Read a size, in bits, of the fragment;

End-of-loop on fragments;

End-of-loop on Access Units.

18. (new) The method of claim 16, wherein said server is a video-on-demand server.

19. (new) The method of claim 16, further comprising archiving the fragmentation structure file for subsequent retrieval as said input.

20. (new) The method of claim 19, wherein said retrieval occurs in response to a request, by a client of said server, for content.